



FirstEnergy Nuclear Operating Company

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July 27, 2004
L-04-081

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

**Subject: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
60-Day Response to NRC Bulletin 2004-01**

Reference:

1. NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," dated May 28, 2004.

NRC Bulletin 2004-01 (Reference 1) was issued to advise licensees that current methods of inspecting Alloy 82/182/600 materials used in the fabrication of pressurizer penetrations and steam space piping connections may need to be supplemented with additional measures to detect and adequately characterize flaws due to primary water stress corrosion cracking (PWSCC).

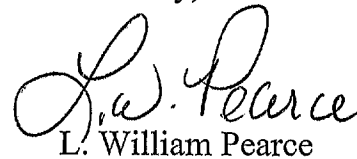
All pressurized-water reactor licensees were requested to submit a response within 60 days of the date of the Bulletin to provide: 1) a description of the pressurizer penetrations and steam space piping connections, 2) a description of the inspection program for Alloy 82/182/600 pressurizer penetrations and steam space piping connections that has been implemented, 3) a description of the inspection program for Alloy 82/182/600 pressurizer penetrations and steam space piping connections that will be implemented during the next and subsequent refueling outages, and 4) why this inspection program is adequate for the purpose of maintaining the integrity of the reactor coolant pressure boundary and meeting all applicable regulatory requirements.

Attachment 1 to this letter contains the FirstEnergy Nuclear Operating Company (FENOC) response for Beaver Valley Power Station Units 1 and 2 to the information requested in NRC Bulletin 2004-01.

Attachment 2 lists new regulatory commitments identified in this document. If there are any questions concerning this matter, please contact Mr. Larry R. Freeland, Manager, Regulatory Affairs/Performance Improvement at 724-682-5284.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 27, 2004.

Sincerely,



L. William Pearce

Attachments

- c: Mr. T. G. Colburn, NRR Senior Project Manager
Mr. P. C. Cataldo, NRC Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator

Attachment 1

60-Day Response to NRC Bulletin 2004-01 Beaver Valley Power Station (BVPS) Unit 1 and Unit 2

This response addresses the Requested Information section in NRC Bulletin 2004-01. As noted in the Bulletin, the pressurizer surge line is not within the scope of this Bulletin; therefore, pressurizer surge nozzle related information is not included in this response.

All subject pressurized-water reactor (PWR) licensees were requested to provide the following information:

(1)(a) A description of the pressurizer penetrations and steam space piping connections at your plant. At a minimum, this description should include materials of construction (e.g., stainless steel piping and/or weld metal, Alloy 600 piping/sleeves, Alloy 82/182 weld metal or buttering, etc.), joint design (e.g., partial penetration welds, full penetration welds, bolted connections, etc.), and, in the case of welded joints, whether or not the weld was stress-relieved prior to being put into service. Additional information relevant with respect to determining the susceptibility of your plant's pressurizer penetrations and steam space piping connections to PWSCC should also be included.

Response:

The following tables provide the (1)(a) requested information for BVPS Unit 1 and Unit 2:

Note that information provided in the tables relating to the "stress-relieved" status of the pressurizer welded joints reflects the fabrication sequence that could be confirmed from the available fabrication and radiographic examination records. The stress relieved status of the heater penetrations and level & temperature instrumentation taps is listed as "unknown" since confirmation could not be made.

Beaver Valley Power Station Unit 1					
Description / Location	Weld ID	Materials	Joint Design	Stress Relieved?	Data Source
4 " Spray Line Nozzle to Safe-end (Steam Space)	RC-72-7-E-01	Nozzle: SA216 Grade WCC Clad with ER 309L, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316	Full penetration butt weld	Yes	WCAP-16199-P, Fabrication Radiographs, Fabrication records ASME N-1A Data Report
6" Safety Valve nozzle to safe-end (Steam Space)	RC-99-1-E-03	Nozzle: SA216 Grade WCC Clad with ER 309L, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316	Full penetration butt weld	Yes	WCAP-16199-P, Fabrication Radiographs, Fabrication records

Beaver Valley Power Station Unit 1					
Description / Location	Weld ID	Materials	Joint Design	Stress Relieved?	Data Source
6" Safety Valve nozzle to safe-end (Steam Space)	RC-97-1-E-01	Nozzle: SA216 Grade WCC Clad with ER 309L, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316	Full penetration butt weld	Yes	WCAP-16199-P, Fabrication Radiographs, Fabrication records
6" Safety Valve nozzle to safe-end (Steam Space)	RC-98-1-E02	Nozzle: SA216 Grade WCC Clad with ER 309L, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316	Full penetration butt weld	Yes	WCAP-16199-P, Fabrication Radiographs, Fabrication records
6" PORV nozzle to safe-end (Steam Space)	RC-104-1-E-01	Nozzle: SA216 Grade WCC Clad with ER 309L, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316	Full penetration butt weld	Yes	WCAP-16199-P, Fabrication Radiographs, Fabrication records
78 - Heater Penetrations	N/A	Heater Well: SA-213 Type 316 SS Weld: ER 308L	Partial Penetration J-groove welds	unknown	Fabrication records
9 - Level & Temperature Instrumentation Taps	N/A	Tubing: SA-213 GR TP 316 Coupling: SA-182, TP F-316 Weld: ER 308L	Partial Penetration J-groove welds	unknown	Fabrication records
Manway	N/A	Nozzle: SA-216-GR. Clad with ER 309L Insert: SA-240, Type 304 Cover: SA-533 Gr. A. Cl.1	Bolted Connection	N/A	Fabrication records

Beaver Valley Power Station Unit 2					
Description / Location	Weld ID	Materials	Joint Design	Stress Relieved	Data Source
4 " Spray Line Nozzle to Safe-end (Steam Space)	2RCS-PRE21-202Z	Nozzle: SA508 Class 2, Clad with SA-213 GR TP 304, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316L	Full penetration butt weld	Weld Buildup only	WCAP-16199-P, Fabrication Radiographs, Fabrication records
6" Safety Valve nozzle to safe-end (Steam Space)	2RCS-PRE21-103C	Nozzle: SA508 Class 2, Clad with SA-213 GR TP 304, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316L	Full penetration butt weld	Weld Buildup only	WCAP-16199-P, Fabrication Radiographs, Fabrication records
6" Safety Valve nozzle to safe-end (Steam Space)	2RCS-PRE21-102B	Nozzle: SA508 Class 2, Clad with SA-213 GR TP 304, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316L	Full penetration butt weld	Weld Buildup only	WCAP-16199-P, Fabrication Radiographs, Fabrication records
6" Safety Valve nozzle to safe-end (Steam Space)	2RCS-PRE21-101A	Nozzle: SA508 Class 2, Clad with SA-213 GR TP 304, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316L	Full penetration butt weld	Weld Buildup only	WCAP-16199-P, Fabrication Radiographs, Fabrication records
6" PORV nozzle to safe-end (Steam Space)	2RCS-PRE21-107Z	Nozzle: SA508 Class 2, Clad with SA-213 GR TP 304, Alloy 82/182 butter Weld Nozzle to Safe-end: Alloy 82/182 Safe-end: SA-182, TP 316L	Full penetration butt weld	Weld Buildup only	WCAP-16199-P, Fabrication Radiographs, Fabrication records

Beaver Valley Power Station Unit 2					
Description / Location	Weld ID	Materials	Joint Design	Stress Relieved	Data Source
78 - Heater Penetrations	N/A	Heater Well: SA-182 F316 SS Weld: ER 308L	Partial Penetration J-groove welds	unknown	Fabrication records
9 - Level & Temperature Instrumentation Taps	N/A	Tubing: SA-213 GR TP 316 SS Nozzle: SA 182 GR F316 Weld: ER 308L	Fillet Weld	unknown	Fabrication records
Manway	N/A	Nozzle: SA-508 CL2 Clad with ER 309L. Insert: SA-240, Type 304 Cover: SA-533 Gr. A Cl.1	Bolted Connection	N/A	Fabrication records

(1)(b) A description of the inspection program for Alloy 82/182/600 pressurizer penetrations and steam space piping connections that has been implemented at your plant. The description should include when the inspections were performed; the areas, penetrations and steam space piping connections inspected; the extent (percentage) of coverage achieved for each location which was inspected; the inspection methods used; the process used to resolve any inspection findings; the quality of the documentation of the inspections (e.g., written report, video record, photographs); and, the basis for concluding that your plant satisfies applicable regulatory requirements related to the integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam space piping connections were found, indicate what followup NDE was performed to characterize flaws in the leaking penetrations.

Response:

In addition to the system leakage VT-2 examinations performed at the beginning of each refueling outage, and the system pressure test VT-2 examinations performed at nominal operating temperature and pressure at the end of each outage, periodically scheduled Inservice Inspection (ISI) examinations have been performed since plant startup at BVPS Unit 1 and Unit 2.

The ISI program for Alloy 82/182 pressurizer penetrations and steam space piping connections is governed by the applicable ASME Section XI Code year in effect for each unit, as modified by approved submittals. The inspection program that will be implemented for future outages is described within the response to (1)(c). Historical information relating to previous NDE examinations is provided within the Examination History tables. Contained within the tables is a chronological summary of NDE examinations performed by method with applicable results. In the case of UT examinations, it should be noted that earlier UT examinations of dissimilar metal welds were performed with shear wave search units, (denoted as Volumetric – S). Subsequent UT examinations have been performed with refracted longitudinal search units (denoted as Volumetric – R/L). This distinction is made to clarify the results of the historical NDE examination information.

No leaking pressurizer piping nozzle penetrations or leaking steam space piping connections have been found at either BVPS unit to date.

Subsequent Visual or Nondestructive examinations that result in recordable NDE indications or any evidence of leakage, will be resolved through the BVPS Corrective Action Program.

The following tables provide the (1)(b) requested information for BVPS Unit 1 and Unit 2:

Beaver Valley Power Station Unit 1 – ASME XI Exam History					
Penetration / Weld ID	Examination Dates	Examination Methods	Extent of Coverage	Results (1)	Documentation Quality
4 “ Spray Line Nozzle to Safe-end RC-72-7-E-01 (Steam Space)	1978	PT (Surface)	100%	SAT	ISI Report
	1978	UT (Volumetric - S)	“Partial”	NI	ISI Report
	1986	PT (Surface)	100%	NRI	ISI Report
	1986	UT (Volumetric - S)	“Limited”	NRI	ISI Report
	1989	PT (Surface)	100%	NRI	ISI Report
	1989	UT (Volumetric - S)	90%	GEOM	ISI Report
	1997	PT (Surface)	100%	NRI	ISI Report
	1997	UT (Volumetric – R/L)	100%	NRI	ISI Report
6” Safety Valve nozzle to safe-end RC-99-1-E-03 (Steam Space)	1982	PT (Surface)	100%	NRI	ISI Report
	1983	UT (Volumetric - S)	“Partial”	NI	ISI Report
	1993	PT (Surface)	100%	RI – SAT	ISI Report
	1993	UT (Volumetric S + R/L)	100%	NRI	ISI Report
	1997	PT (Surface)	100%	NRI	ISI Report
	1997	UT (Volumetric – R/L)	84%	NRI	ISI Report
6” Safety Valve nozzle to safe-end RC-97-1-E-01 (Steam Space)	1982	PT (Surface)	100%	NRI	ISI Report
	1983	UT (Volumetric - S)	“Partial”	NI	ISI Report
	1996	PT (Surface)	100%	NRI	ISI Report
	1996	UT (Volumetric – R/L)	100%	NRI	ISI Report
	1997	PT (Surface)	100%	NRI	ISI Report
	1997	UT (Volumetric – R/L)	93%	NRI	ISI Report
6” Safety Valve nozzle to safe-end RC-98-1-E02 (Steam Space)	1982	PT (Surface)	100%	NRI	ISI Report
	1983	UT (Volumetric - S)	“Partial”	NI	ISI Report
	1989	PT (Surface)	100%	NI	ISI Report
	1989	UT (Volumetric R/L)	70%	NRI	ISI Report
	1996	UT (Volumetric R/L)	>90%	NRI	ISI Report
	1997	UT (Volumetric R/L)	64%	NRI	ISI Report

Beaver Valley Power Station Unit 1 – ASME XI Exam History					
Penetration / Weld ID	Examination Dates	Examination Methods	Extent of Coverage	Results (1)	Documentation Quality
6" PORV nozzle to safe-end RC-104-1-E-01 (Steam Space)	1988	PT (Surface)	100%	NRI	ISI Report
	1988	UT (Volumetric – S)	100%	NRI	ISI Report
	1996	PT (Surface)	100%	NRI	ISI Report
	1996	UT (Volumetric – R/L)	>90%	NRI	ISI Report
	1997	PT (Surface)	100%	RI	ISI Report
	1997	PT (Surface)	100%	NRI	ISI Report
	1997	UT (Volumetric R/L)	72%	GEOM	ISI Report
	2000	PT (Surface)	100%	NRI	ISI Report

Beaver Valley Power Station Unit 2 –ASME XI Exam History					
Penetration / Weld ID	Examination Dates	Examination Methods	Extent of Coverage	Results (1)	Documentation Quality
4 " Spray Line Nozzle to Safe-end 2RCS-PRE21-202Z (Steam Space)	1987	PT (Surface)	100%	RI – SAT	PSI Report
	1987	UT (Volumetric – S)	100%	GEOM	PSI Report
	1989	PT (Surface)	100%	RI-SAT	ISI Report
	1989	UT (Volumetric – R/L)	100%	GEOM	ISI Report
	1996	PT (Surface)	100%	NRI	ISI Report
	1996	UT (Volumetric - R/L)	100%	NRI	ISI Report
	1999	UT (Volumetric – R/L)	100%	NRI	ISI Report
6" Safety Valve nozzle to safe-end 2RCS-PRE21-103C (Steam Space)	1987	PT (Surface)	100%	NRI	PSI Report
	1987	UT (Volumetric – S)	100%	NRI	PSI Report
	1992	PT (Surface)	100%	NRI	ISI Report
	1992	UT (Volumetric - R/L)	100%	NRI	ISI Report
	1996	UT (Volumetric – R/L)	100%	NRI	ISI Report
6" Safety Valve nozzle to safe-end 2RCS-PRE21-102B (Steam Space)	1987	PT (Surface)	100%	NRI	PSI Report
	1987	UT (Volumetric – S)	100%	NRI	PSI Report
	1992	PT (Surface)	100%	NRI	ISI Report
	1992	UT (Volumetric - R/L)	100%	NRI	ISI Report
	1996	UT (Volumetric – R/L)	100%	NRI	ISI Report

Beaver Valley Power Station Unit 2 –ASME XI Exam History					
Penetration / Weld ID	Examination Dates	Examination Methods	Extent of Coverage	Results (1)	Documentation Quality
6" Safety Valve nozzle to safe-end 2RCS-PRE21-101A (Steam Space)	1987	PT (Surface)	100%	NRI	PSI Report
	1987	UT (Volumetric – S)	100%	NRI	PSI Report
	1992	PT (Surface)	100%	NRI	ISI Report
	1992	UT (Volumetric - R/L)	100%	NRI	ISI Report
	1996	UT (Volumetric – R/L)	100%	NRI	ISI Report
6" PORV nozzle to safe-end 2RCS-PRE21-107Z (Steam Space)	1987	PT (Surface)	100%	NRI	PSI Report
	1987	UT (Volumetric – S)	100%	NRI	PSI Report
	1996	PT (Surface)	100%	NRI	ISI Report
	1996	UT (Volumetric – R/L)	100%	NRI	ISI Report

(1)

SAT = Satisfactory (Exam revealed no indications that exceeded allowable code flaw acceptance criteria)

NI = No Indications (As stated - No Indications - This result is SAT)

NRI = No Recordable Indications (No indications that met procedure recording threshold) (This result is also SAT)

RI - SAT = Recordable Indication within the allowable code flaw acceptance criteria (This result is SAT)

GEOM = Geometric Reflector - (UT response attributed to geometric or metallurgical feature) (This result is SAT)

The examinations have been conducted in accordance with the BVPS Unit 1 and Unit 2 ISI Programs which are governed by the ASME Section XI Code. The examinations were performed in accordance with BVPS programs and procedures that are based on applicable regulatory requirements. These examinations, performed to date, combined with planned Alloy 82/182/600 pressurizer and steam space piping connection inspection program that will be implemented as described within the response to (1)(c), provide the basis for concluding that the integrity of pressurizer penetrations and steam space piping connections at both Beaver Valley units meets applicable regulatory requirements.

(1)(c) A description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented at your plant during the next and subsequent refueling outages. The description should include the areas, penetrations and steam space piping connections to be inspected; the extent (percentage) of coverage to be achieved for each location; inspection methods to be used; qualification standards for the inspection methods and personnel; the process used to resolve any inspection indications; the inspection documentation to be generated; and the basis for concluding that your plant will satisfy applicable regulatory requirements related to the structural and leakage integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam space piping connections are found, indicate what followup NDE will be performed to characterize flaws in the leaking penetrations. Provide your plans for expansion of the scope of NDE to be performed if circumferential flaws are found in any portion of the leaking pressurizer penetrations or steam space piping connections.

Response:

Inspection Plans for Upcoming Refueling Outages:

At BVPS Unit 1, a 100% bare metal visual inspection of the five (5) Alloy 82/182 nozzle-to-safe-end welds associated with the pressurizer spray (1), relief (1), and safety (3) nozzles will be performed during the upcoming 1R16 refueling outage (Fall 2004) as part of the "Needed" recommendation identified in EPRI MRP 2004-05. As identified in the response to Item (1)(a), the nozzle-to-safe-end welds at these locations represent the known Alloy 600/82/182 pressure-retaining components in the Unit 1 pressurizer penetrations and steam space piping. The visual exams will also be used to verify the as-built weld configurations at these locations to facilitate the development of qualified non-visual NDE techniques.

The same examination scope identified above will be performed at the next BVPS Unit 2 refueling outage (2R11, Spring 2005). All visual examinations will be performed by individuals qualified to the visual examination criteria appropriate to identify through-wall leakage from welded pressure boundary connections in the RCPB.

If any of the visual inspections noted above should identify evidence of leakage from an Alloy 82/182 weld, examination scope expansion will include non-visual NDE of the affected nozzle-to-safe-end weld and the remaining Alloy 82/182 pressurizer steam space penetration nozzle-to-safe-end welds at the affected unit. This supplemental NDE of the like pressurizer penetrations in the steam space will be performed regardless of the orientation (axial or circumferential) of the discovered flaw. Non-visual NDE methods may include PDI qualified UT (to the extent possible), "best-effort" UT, radiography, or other alternative methods to ensure appropriate flaw detection and characterization. It is recognized that limitations in performing additional NDE may exist due to uncertainties associated with weld and nozzle geometry and surface conditions. Follow-up NDE will be supplemented with other alternative NDE methods and mediation techniques, as necessary, to provide reasonable assurance of PWSCC flaw detection, characterization, and remediation.

Any leaking or non-leaking indications identified in the course of the above examinations will be documented and evaluated via the site Corrective Action Program. If required, repairs to degraded pressurizer nozzle-to-safe-end welds will be effected applying the appropriate ASME Section XI requirements, code cases, and relief requests as necessary.

Personnel performing NDE will be qualified in accordance with ASME Section XI as follows:

- VT, PT, RT and MT personnel will be qualified in accordance with ASME XI, 1989 Edition, Paragraph IWA-2300.
- UT personnel (as well as procedures and equipment) will be qualified in accordance with ASME XI, 1995 Edition, 1996 Addenda and the Industry Performance Demonstration Initiative (PDI) Program and will have completed Performance Demonstrations using the appropriate qualified PDI or vendor procedure(s) for the configuration(s) requiring examination.

Inspection Plans for Subsequent Refueling Outages:

Bare metal visual examinations of the Alloy 82/182 pressurizer nozzle locations will be performed at each BVPS refueling outage. If any of the visual inspections above should identify evidence of leakage from an Alloy 82/182 weld, examination scope will be expanded to include non-visual NDE of the affected nozzle-to-safe-end weld and the remaining Alloy 82/182 pressurizer steam space penetration nozzle-to-safe-end welds at the affected unit. Any leaking or non-leaking indications identified in the course of these examinations will be documented and evaluated via the site Corrective Action Program. If required, repairs to degraded pressurizer nozzle-to-safe-end welds will be effected applying the appropriate ASME Section XI requirements, code cases, and relief requests as necessary.

Non-visual NDE examinations of the Alloy 82/182 pressurizer nozzle-to-safe-end welds will be performed as defined by the existing BVPS ISI examination schedule. NDE of Alloy 82/182 welds not currently scheduled per the Risk-Informed ISI program will be performed as augmented inspections. These augmented inspections will include the three (3) safety valve nozzle-to-safe-end welds at Unit 1 and Unit 2. Non-visual NDE of the pressurizer spray (1) and relief (1) valve nozzle-to-safe-end welds are required per the existing RI-ISI program.

The aforementioned examination schedule will be applied until such time that mitigative and/or replacement actions are taken to alleviate the concern for PWSCC at these locations. Potential actions may include component replacement, mechanical mitigation, chemical mitigation, or a combination thereof.

BVPS will continue to monitor industry guidance, operating experience, and ASME Section XI changes for augmentation of the above examination schedule as required to ensure the integrity of RCPB and to continue to maintain an extremely low probability of leakage or rapidly propagating failure.

(1)(d) In light of the information discussed in this bulletin and your understanding of the relevance of recent industry operating experience to your facility, explain why the inspection program identified in your response to item (1)(c) above is adequate for the purpose of maintaining the integrity of your facility's RCPB and for meeting all applicable regulatory requirements which pertain to your facility.

Response:

The BVPS inspection plan outlined in the response to item (1)(c) will ensure that the integrity of the pressurizer penetrations and steam space piping is maintained. The 100% bare metal visual inspections of the affected Alloy 82/182 pressurizer nozzle-to-safe-end welds are sufficient to detect the small amounts of boric acid deposits that may result from through-wall PWSCC flaws in steam space penetration locations. The recent industry operating experience suggests that bare metal visual examinations of the pressurizer penetrations within the scope of this Bulletin every refueling outage will be effective in maintaining RCPB integrity and a low probability of leakage as required by GDC 14 and 10 CFR 50.55a.

Industry experience to date and the slow crack growth rates associated with PWSCC suggest that sufficient margin exists between the discovery of leakage and gross rupture, such that the performance of bare metal visual examinations every refueling outage minimizes the probability of rapidly propagating failure as defined by GDC 31.

Necessary actions, including insulation removal and the movement of other obstructions, will be taken to facilitate the inspection plan defined in BVPS response to item (1)(c) as required by GDC 32.

All examinations, visual and non-visual NDE, will be performed by qualified personnel using qualified procedures and techniques as required by Criterion IX of Appendix B of 10 CFR 50. Visual and non-visual NDE will furthermore be performed and documented in accordance with appropriate procedures and acceptance criteria per the requirements of Criterion V of Appendix B of 10 CFR 50.

Inspection results that reveal leaking or non-leaking indications of Alloy 82/182 pressurizer nozzle-to-safe-end welds will result in expanded NDE scope and will be evaluated per the site Corrective Action Program as identified in the BVPS response to item (1)(c) to ensure that an adequate extent-of-condition evaluation is performed as required by Criterion XVI of Appendix B of 10 CFR 50.

The outlined BVPS inspection plan will be conducted in accordance with BVPS programs and procedures that are based on applicable regulatory requirements.

ATTACHMENT 2

Commitment List

The following list identifies those actions committed to by FirstEnergy Nuclear Operating Company (FENOC) for Beaver Valley Power Station (BVPS) Unit Nos. 1 and 2 in this document. Any other actions discussed in the submittal represent intended or planned actions by BVPS. These other actions are described only as information and are not regulatory commitments. Please notify Mr. Larry R. Freeland, Manager, Regulatory Affairs/Performance Improvement, at BVPS on (724) 682-5284 of any questions regarding this document or associated regulatory commitments.

<u>Commitment</u>	<u>Due Date</u>
At BVPS Unit 1, a 100% bare metal visual inspection of the five (5) Alloy 82/182 nozzle-to-safe-end welds associated with the pressurizer spray (1), relief (1), and safety (3) nozzles will be performed.	16th Refueling Outage (Fall 2004)
At BVPS Unit 2, a 100% bare metal visual inspection of the five (5) Alloy 82/182 nozzle-to-safe-end welds associated with the pressurizer spray (1), relief (1), and safety (3) nozzles will be performed.	11th Refueling Outage (Spring 2005)
At BVPS Unit 1 and Unit 2, a 100% bare metal visual inspection of the five (5) Alloy 82/182 nozzle-to-safe-end welds associated with the pressurizer spray (1), relief (1), and safety (3) nozzles will be performed. The aforementioned examination schedule will be applied until such time that mitigative and/or replacement actions are taken to alleviate the concern for PWSCC at these locations	Subsequent Refueling Outages